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Applicant: Paul J. Strande
Filed: Herewith
Title: GOLF SWING PATH AND ALIGNMENT TRAINING DEVICE
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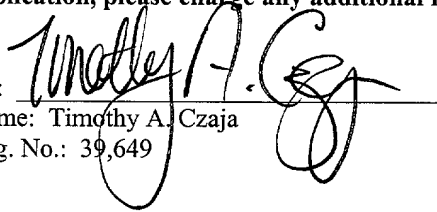
- ☒ Transmittal Sheet containing Certificate of Mailing under 37 C.F.R. 1.10 (1 pg.).
☒ Utility Patent Application under 37 CFR § 1.53(b) comprising:
☒ Specification (11 pgs.); Claims (1-22); and an Abstract (1 pg.).
☐ Informal Drawing(s) (sheets).
☒ Formal Drawings(s) (1 sheet).
☒ Signed Combined Declaration, Power of Attorney and Petition (1 pgs.).
☐ Unsigned Combined Declaration, Power of Attorney and Petition (pgs.).
☒ Verified Statement (Declaration) Claiming Small Entity Status--Independent Inventor (1 pgs.).
☐ Assignment of invention to , (pgs.); Recordation Form Cover Sheet (1 pg.) and a Check in the amount of \$40.00 for filing of Assignment Document.
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STATUS (37 CFR 1.9(f) AND 1.27(b)) – INDEPENDENT INVENTOR**

As below named inventor, I hereby declare that I qualify as an independent inventor as defined in 37 CFR § 1.9(c) for purposes of paying reduced fees under Section 41(a) and (b) of Title 35, United States Code, to the Patent and Trademark Office with regard to the invention entitled GOLF SWING PATH AND ALIGNMENT TRAINING DEVICE described in

- ☒ the specification filed herewith.
- ☐ application Serial No. _____, filed _____.
- ☐ Patent No. _____, issued _____.

I have not assigned, granted, conveyed or licensed and am under no obligations under contract or law to assign, grant, convey or license, any rights in the invention to any person who could not be classified as an independent inventor under 37 CFR § 1.9(c) if that person has made the invention, or to any concern which would not qualify as a small business concern under 37 CFR § 1.9(d) or a non-profit organization under 37 CFR § 1.9(e).

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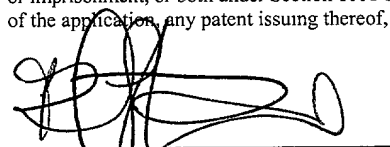
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N/A
Name of Second-Named Inventor

N/A
Name of Third-Named Inventor

Signature _____
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Signature of Inventor _____
Date _____

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Date _____

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GOLF SWING PATH AND ALIGNMENT TRAINING DEVICE

Background of the Invention

5 The present invention relates to an apparatus for assisting a golfer in performing a proper golf swing. More particularly, it relates to an apparatus configured to provide a direct visual indication of proper arm and body motion during a golf swing, as well as a correct stance alignment.

10 Over the past several decades, golf has become an extraordinarily popular pastime. Literally millions of people avidly participate in this sport, with tens of thousands of new golfers taking up the same annually. As with any other athletic endeavor, skill levels and abilities vary greatly from golfer to golfer. On the one hand, the disparity in skill level can be attributed to basic athletic ability, such as hand-eye coordination. Importantly, however, even
15 athletically inclined individuals encounter great difficulties in mastering the proper golf swing. This difficulty can be attributed to the many variables associated with the golf swing, including grip, stance, arm motion, body motion, club direction, weight shift and distribution, etc.

20 In light of the complex nature of a golf swing, many golfers invest time and money in hopes of "perfecting" their golf swing. To this end, teaching professionals are invaluable resources. Additionally, a large number of mechanical teaching aids are available. These teaching aids may be used by the individual golfer, or may be employed by a teaching professional. The teaching aids assume a wide variety of forms, ranging from unique golf club grips and
25 heads to intricate mechanisms worn by the golfer.

30 Regardless of the exact form, golf swing teaching aids have a common goal; to assist the golfer in "learning" a proper golf swing. To this end, a vast majority of the teaching aids are designed to teach the golfer, at an almost subconscious level, certain golf swing alterations or improvements. Through a large number of golf swing repetitions with the teaching aid in place, it has been found that the golfer's mind and body are "trained" to subsequently repeat the

swing correction with the teaching aid removed. For example, a uniquely configured strap may be worn by a golfer to keep the golfer's left elbow (for a right-handed golfer) close to his or her body during the golf swing. The generally accepted belief is that by performing a large number of swings with the device in place, the golfer's mind and body will subconsciously "memorize" the proper arm placement so that subsequent swings taken without the strap will still result in proper elbow placement.

While several of the available teaching aids have achieved some success, no one device is universally accepted. This may be due to the above-described approach of "training" the golfer's mind and body to perform a particular swing correction by constraining a portion of the golfer's body and/or hands during repeated practice swings. Effectively, these teaching aids "trick" the mind and body to perform a golf swing differently from how the golfer would swing naturally. Once the device is removed, over time the golfer's mind and body may "forget" the swing correction, reverting to the natural form, including certain swing imperfections. A more preferred approach would be to provide the golfer with a direct visual indication of the proper swing technique during each practice swing. This same ideology holds true for teaching professionals. The professional may be able to orally explain proper swing kinematics prior to a practice swing. However, during an actual swing, the golfer has no visual clues and is instead forced to attempt to remember the instructor's tips concurrent with the swing itself. Obviously, this is a difficult task in that a golf swing is less than two seconds in duration.

As previously described, the proper golf swing includes many components. In most basic terms, however, the proper golf swing requires the golfer to maneuver his or her arms in a vertically planar swing path that is preferably "straight" during a back stroke as well as just prior to and following golf ball impact during the down stroke. Conversely, the golfer's body (other than the arms) preferably moves in a rotating fashion to properly distribute weight and position the club face throughout the swing. Essentially, the arms swing in a vertical plane, whereas the body turns about a horizontal plane. It has

been estimated that 75% of all golfers make the fundamental mistake of swinging the club inside horizontally around their hips or ankles. Even though a proper golf swing entails a circular arm motion, the club must be moved straight back the first few inches of the swing in order for the club to swing over the back shoulder in the correct swing plane. The various teaching aids strive to address these objectives. Unfortunately, because no visual indication is provided to the golfer of these essential swing parameters, it is unlikely that a long-term swing correction can be achieved with currently available teaching aids. Further, while the above-stated objectives may appear simplistic in nature, teaching aids have become increasingly complex, and therefore expensive. Thus, most teaching aids are ineffective from both a practical and cost standpoint.

Golf continues to be an extremely popular sport. Few participants, however, have been able to perfect and consistently perform a proper golf swing. The plethora of available teaching aids, regardless of complexity, have not been able to adequately guide a golfer through a proper swing pattern, especially on a visual basis. An additional detriment to most teaching aids are the excessive costs. Therefore, a need exists for an inexpensive golf swing path training device configured to provide a direct visual indication of proper swing technique.

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Summary of the Invention

One aspect of the present invention relates to a golf swing path training device for visually guiding a golfer through a proper swing path. The golf swing path training device includes an arm path member and a body path member. The arm path member includes a leading end, a central portion and a trailing end. Similarly, the body path member includes a leading end, a central portion and a trailing end. The arm path member and the body path member are preferably integrally formed such that the central portion of the arm path member is connected to the central portion of the body path member. The central portion of the arm path member is substantially straight, whereas the central portion of the body path member is substantially arcuate. With these attributes in mind, the

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golf swing path training device is configured to be placed on the ground in front of a golfer. During a swing, the arm path member, and in particular the substantially straight central portion, visually directs the golfer to maintain a substantially straight arm swing path during the back swing. Conversely, the
5 body path member, and in particular the substantially arcuate central portion, visually directs the golfer to maneuver his or her body in an arcuate or rotating fashion throughout the golf swing.

Due to its integral form, the golf swing path training device of the present invention is convenient to transfer from location to location, as well as to
10 properly orientate in front of a golfer. That is to say, no complex assembly is required, and each of the arm path member and the body path member are consistently orientated in a proper fashion. Additionally, the golf swing path training device is relatively simple and therefore inexpensive. In one preferred embodiment, the golf swing path training device further includes a club path
15 indicator for visually guiding the golfer to properly maneuver and position the club head during the golf swing both before and after golf ball impact. In another preferred embodiment, the curved nature of the body path member provide a visual indication of an incorrect swing path to the golfer.

20 **Brief Description of the Drawings**

The Figure is a top view of a golf swing path training device in accordance with the present invention.

Description of the Preferred Embodiments

25 In the following detailed description of the preferred embodiments, reference is made to the accompanying drawings which form a part hereof, and in which is shown by way of illustration specific embodiments in which the invention may be practiced. It is to be understood that other embodiments may be utilized and structural or logical changes may be made without departing
30 from the scope of the present invention. The following detailed description,

therefore, is not to be taken in a limiting sense, and the scope of the present invention is defined by the appended claims.

One preferred embodiment of a golf swing path training device 10 is shown in the Figure. The golf swing path training device 10 includes an arm path member 12, a body path member 14 and a down swing club path guide 16. As described in greater detail below, the arm path member 12 is connected to the body path member 14. Further, the down swing club path guide 16 is formed along a portion of the combination of the arm path member 12 and the body path member 14.

For one preferred embodiment, the arm path member 12 includes a trailing end 18, a central portion 20 and a leading end 22. The central portion 20 defines a back swing section 24 and a target line section 26. As described in greater detail below, the back swing section 24 is configured to direct a user to maintain a relatively straight arm path during a back swing. The target line section 26 is configured to properly align the training device 10 relative to a desired target (not shown). In other words, by "aiming" the target line section 26 at a desired target, a user will properly align his or her stance relative to the desired target.

It should be noted that directional terminology used throughout this specification, such as "leading," "trailing," "back swing" and "down swing" are used for purposes of illustration and are in no way limiting. That is to say, orientation of the golf swing path training device 10 is depicted in FIG. 1 for a right-handed golfer. Therefore, the trailing end 18 is positioned for directing arm path during a back swing or stroke of a right-handed golfer; whereas the leading end 22 points a right-handed golfer toward a desired target. Alternatively, the golf swing path training device 10 may be configured for a left-handed golfer such that the trailing end 18 and the leading end 22 are reversed. In fact, the golf swing path training device 10 is preferably configured to include identical attributes (including shapes and indicia) on a reverse side (i.e., opposite the side shown in Figure 1). Thus, the golf swing path training device 10 can simply be turned over for a left-handed golfer.

Regardless of exact orientation, the trailing end 18 and the leading end 22 are integrally formed with the central portion 20. In other words, the trailing end 18 is formed as an extension of the back swing section 24, whereas the leading end 22 extends from the target line section 26. As shown in FIG. 1, the trailing end 18 and the leading end 22 are preferably formed in the shape of an arrowhead. This arrow head configuration for the trailing end 18 visually highlights to a user that the back swing section 24 relates to the back swing itself. That is to say, the arrowhead 18 points in the direction of the back swing so that a user will understand to follow the arm path provided by the back swing section 24 during the back swing. Conversely, the arrowhead configuration for the leading end 22 facilitates straightforward alignment of the target line section 26 with a desired target (e.g., the arrowhead points at the desired target). Alternatively, other shapes may also be acceptable.

The central portion 20 of the arm path member 12 is preferably substantially straight in the plane of FIG. 1. Thus, both the back swing section 24 and the target lines section 26 are linearly arranged. Notably, this linear orientation is best illustrated with reference to an outer edge 28 of the central portion 20. With this configuration, the arm path member 12 visually guides a golfer (not shown) to maintain a substantially straight arm swing during the back swing. To this end, it should be understood that even though a golf swing is circular, the club must be brought straight back during the initial stage of the back swing. The arm path member 12 emphasizes this proper technique.

As an additional visual guide to proper back swing arm movement, in one preferred embodiment, the arm path member 12 further includes back swing indicia 30. The back swing indicia 30 is disposed along a top face (shown in FIG. 1) of the back swing section 24, and preferably comprises a darkened line terminating in an arrowhead 32. The back swing indicia 30 is, once again, substantially straight for visually highlighting proper arm swing path during the back stroke and may include differently colored dashes 34 to further indicate back stroke direction. In this regard, the dashes 34 effectively appear as a “roadway” such that the user is visually prompted to “take the high road” during

the back swing. The arrowhead 32 is formed adjacent the trailing end 18 of the arm path member 12, preferably corresponding with the arrowhead formed by the trailing end 22.

To visually distinguish the target line section 26 from the back swing
5 section 24, the target line section 26 preferably includes target indicia 36. The target indicia 36 is preferably a solid line so as to differentiate from the dashes to associated with the back swing indicia 30.

The body path member 14 includes a trailing end 40, a central portion 42
10 and a leading end 44. The central portion 42 further defines a back swing section 46 and a follow through section 48. As with arm path member 12, the body path member 14 is preferably integrally formed, with the central portion 42 terminating in the trailing end 40 and the leading end 44. Unlike the arm path member 12, however, the central portion 42 of the body path member 14 is preferably arcuate in form. Thus, the back swing section 46 and the follow
15 through section 48 combine to define a substantially continuous curve. This curved configuration is be illustrated with reference to an outer edge 50 of the central portion 42 and provides a visual indication of proper horizontal body rotation or movement during a golf swing. To provide further visual assistance in this regard, the leading end 44 of the body path member 14 preferably forms
20 an arrowhead, whereas the trailing end 40 is preferably linear or straight. By providing an arrowhead for the leading end 44, the body path member 14 visually guides the golfer to perform a complete follow through motion in which the golfer's body continues to rotate throughout the swing. As a further benefit, the body path member 14 visually represents to the user an incorrect swing path.
25 In particular, and as previously described, a common golf swing flaw is a failure to bring the club straight back during initial stages of the back stroke. In fact, an all to common problem is that a golfer will bring the club back in a curved fashion (i.e., swinging inside horizontally around the hips or ankles). The curved nature of the body path member 14 provides a direct visual indication of
30 this incorrect swing format to the user.

As with the arm path member 12, the body path member 14 preferably further includes back swing or stroke indicia 52 and follow through or down swing indicia 54. The back swing indicia 52 is preferably disposed along a top face (illustrated in FIG. 1) of the back swing section 46 and is preferably a darkened line having a shape corresponding with that of the back swing section 46. Therefore, the back swing indicia 52 is arcuate or curved, terminating in a linear end 54 corresponding with the trailing end 40. Once again, the back swing indicia 52 visually highlights that a proper swing path includes rotation of the body during the backstroke.

The follow through indicia 54 is disposed along the follow through section 48 of the central portion 42 and is preferably a darkened line terminating in an arrow head 55. Once again, the follow through indicia 54 corresponds with a shape of the follow through section 48 and is therefore preferably arcuate or curved. Further, the arrowhead 55 is positioned adjacent the leading end 44. With this configuration, the follow through indicia 54 provides a visual indication to the golfer (not shown) of proper body motion during the follow through portion of the swing subsequent to impact.

The arm path member 12 and the body path member 14 are preferably integrally formed such that at least a portion of the arm path member 12 is connected to a portion of the body member 14. The integral formation of the arm path member 12 and the body path member 14 creates a single monolithic unit. As shown in FIG. 1, for example, the central portion 20 of the arm path member 12 is connected to the central portion 42 of the body path member 14.

As shown in Figure 1, however, the connection of the central portions 20, 42 does not interfere with formation of arrow heads at the trailing end 18 and the leading end 22 of the arm path member 12, or at the leading end 44 of the body path member 14. In particular, the arm path member 12 further includes inner edge 56 and body path member 14 further includes inner edge 57. Adjacent the leading ends 22, 44 of the respective arm path member 12 and body path member 14, these inner edges 56, 57 together form a first acute angle 58 with vertex 59. Adjacent the trailing ends 18, 40 of the respective arm path member

12 and body path member 14, these inner edges 56, 57 together form a second acute angle 60 with vertex 61. The arrowhead 70 of the club path indicator 16 is disposed adjacent the vertex 59 of the first acute angle 58 and a trailing end 72 of the club path indicator 16 is disposed adjacent the vertex 61 of the second acute angle 60.

This arrangement, in combination with the commonality of central portions 20, 42 of the respective arm path member 12 and body path member 14, creates a unique appearance that accentuates a contact zone 62 where the arm swing indicators, body path indicators, and club path indicators converge at and about the location of the ball adjacent central portions 20,42. This arrangement also creates a separation zone highlighted by the divergence of the arm path member 12 and the body path member 14 at the leading end by first acute angle 58 and at the trailing end by second acute angle 60. This diverging pattern helps the golfer visualize and actualize the divergence of the path of the golfer's arms from the golfer's body both on the back swing and on the follow through. Conversely, the contact zone 62 highlights the golfer's expected convergence of the orientation of golfer's arms and body as the club contacts the ball.

Integral formation of the arm path member 12 and the body path member 14 preferably provides for a slot 64 and a plurality of holes 66. The slot 64 is centrally disposed along the arm path member 12 and the body path member 14, and extends through a thickness of the golf swing path training device 10. The slot 64 has a longitudinal axis that is aligned generally tangential to an apex of the generally arcuate club path indicator 16. Further, the slot 64 is formed to have a length and width sufficient for insertion of a golf tee (not shown) therethrough. Thus, when the golf swing path training device 10 is placed on the ground (and thus in the orientation of FIG. 1), the golf tee can be inserted through the slot 64 and secured to the ground. Subsequently a golf ball (not shown) can be placed on top of the golf tee, as would normally be done without the training device 10 in place. The holes 66 similarly extend through a thickness of the golf swing path training device 10 and are preferably located at the trailing end 18 and the leading end 22 of the arm path member 12.

Additional holes can also be formed in the body path member 14. Regardless, the holes 66 are preferably sized to have a diameter slightly greater than a diameter of a golf tee shaft such that the golf swing path training device 10 can be selectively secured to the ground via simple placement of tees through the
5 holes 66.

With the above-described integral formation of the arm path member 12 to the body path member 14 in mind, the down swing club path guide 16 is preferably formed along a connection point between the two central portions 20, 42. In one preferred embodiment, the down swing club path guide 16 assumes a
10 dashed line format, so as to be visually distinguishable from the various other indicia 30, 36, 52, 54. Further, as shown in FIG. 1, the dashed line comprising the down swing club path guide 16 is preferably curved or arcuate, thereby representing a proper club path direction during the down swing and follow through. Finally, the down swing club path guide 16 preferably terminates in an
15 arrowhead 70 adjacent the leading end 22, 44 of the arm path member 12 and the body path member 14, respectively. The arrowhead 70 provides a visual indication of proper follow through direction of the club head (not shown).

In one preferred embodiment, the golf swing path training device 10 is formed from a rigid plastic, such as high-density polyethylene. The down swing
20 club path guide 16 as well as the various indicia 30, 36, 52, 54 are subsequently printed onto the plastic material with an ink. Alternatively, a stenciling technique, or any other acceptable printing process may be used. Regardless of exact composition, the golf swing path training device 10 preferably has a uniform thickness of about 3/16-1/4 inch and a length of approximately 42
25 inches. With these dimensions, a golf tee (not shown) inserted through the slot 64 will extend above the golf swing path training device 10 such that the device 10 will not interfere with a golf swing during use.

During use, the golf swing path training device 10 is orientated relative to a desired target (not shown) such that the leading end 22 of the target line section
30 28 points toward the target. The device 10 is then secured to the ground, such as, for example, by golf tees (not shown) inserted through the holes 66. An

additional golf tee (not shown) is inserted through the slot 64 into the ground and a golf ball (not shown) placed on top thereof. A golfer (not shown) addresses the golf ball in a normal fashion. To this end, the device 10 serves to properly align the golfer's stance relative to the target. The golfer then begins to swing the golf club. During the backstroke portion of the golf swing, the arm path member 12 visually indicates to the golfer a substantially straight or vertical arm swing path. The body path member 14, conversely, indicates a rotation of the body via the curve configuration, as well as incorrect swing path. Thus, the golfer maintains a vertical arm path and horizontal body path. During the subsequent down swing, the down swing club path guide 16 visually guides the golfer to direct the club head toward the golf ball along an arcuate path, whereas the body path member 14 indicates a rotation of the body (and therefore a proper weight shift). Following impact with the golf ball, the down swing club path guide 16 continues to provide a visual indication of an arcuate club path; whereas the body path member 14 visually indicates a complete body rotation during follow through.

The golf swing path training device of the present invention provides a marked improvement over other available training aids. In particular, the golf swing path training device gives multiple, direct visual indications to a golfer of proper swing technique. Thus, the golfer is not required to rely upon a subconscious swing memory to achieve golf swing correction. In fact, it is likely that following repeated use, the golfer's minds eye will remember the visual cues provided by the golf swing path training device during actual play. Finally, due to its integral formation, the golf swing path training device of the present invention is easy to transport from location to location, and requires no assembly for use. Along these same lines, the golf swing path training device is inexpensive, easy to use, durable and long lasting.

Although the present invention has been described with reference to preferred embodiments, workers skilled in the art will recognize that changes may be made in form and detail without departing from the spirit and scope of the invention.

WHAT IS CLAIMED IS:

1. A golf swing aid comprising:

an arm path member having a substantially linear, elongate shape and

5 having a leading end, a central portion, and a trailing end; and

a body path member having a generally arcuate shape with a leading end,
a central portion and a trailing end, with the central portion being
integrally connected together with the central portion of the arm
path member as a monolithic unit;

10 wherein an outer edge of the arm path member defines a straight edge
and an outer edge of the body path member defines a curved
edge.

2. The golf swing aid of claim 1, wherein the arm path member includes a
15 directional arrow disposed at each of the leading and trailing ends of the arm
path member, with the directional arrows pointing in opposite directions relative
to one another.

3. The golf swing aid of claim 2, wherein the leading end of the body path
20 member includes a directional arrow.

4. The golf swing aid of claim 1, wherein the arm path member includes a
generally straight arm path indicator and the body path member includes a
generally arcuate body path indicator, with each indicator being disposed on a
25 first side of the golf swing aid.

5. The golf swing aid of claim 4, wherein a second arm path indicator and, a
second body path indicator, are disposed on a second side of the golf swing aid
opposite the first side.

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6. The golf swing aid of claim 4, and further comprising:

a generally arcuate-shaped club path indicator arranged between the arm path indicator and the body path indicator on the first side of the golf swing aid.

5 7. The golf swing aid of claim 1, wherein a junction of the central portions of the arm path member and the body path member defines an elongate hole for receiving a golf tee.

8. The golf swing aid of claim 1, wherein the central portion of the arm path
10 member further includes a target line indicia disposed adjacent the leading end and a back swing indicia disposed adjacent the trailing end.

9. The golf swing aid of claim 8, wherein the back swing indicia includes a generally straight solid line with dashed portions formed therein.

15 10. The golf swing aid of claim 8, wherein the target line indicia includes a generally straight solid line.

11. The golf swing aid of claim 1, wherein the body path member includes a
20 back swing portion and a follow through portion, with the back swing portion and the follow through portion each have a generally arcuate shape generally matching the curvature of the body path member.

12. The golf swing aid of claim 11, wherein both the back swing portion and
25 the follow through portion include an indicia formed thereon and having a shape generally matching the curvature of the respective follow through portion and back swing portion.

13. The golf swing aid of claim 1, wherein the body path member is
30 configured to visually indicate an incorrect swing path.

14. The golf swing aid of claim 1, and further comprising:
a first anchoring hole adjacent the leading end of the arm path member;
a second anchoring hole adjacent the trailing end of the arm path
member; and
5 an elongate golf tee hole centrally located at a junction between the arm
path member and the body path member.
15. The golf swing aid of claim 1, wherein an inner edge of the arm path
member and an inner edge of the body path member adjacent the respective
10 leading ends of the arm path member and the body path member define a first
acute angle therebetween having a vertex.
16. The golf swing aid of claim 15, wherein the inner edge of the arm path
member and the inner edge of the body path member adjacent the respective
15 trailing ends of the arm path member and the body path member define a second
acute angle therebetween having a vertex.
17. The golf swing aid of claim 16, and further comprising a club path
indicator extending through a junction of the arm path member and the body
20 path member with a leading end of the club path indicator disposed adjacent to
the vertex of the first acute angle and a trailing end of the club path indicator
disposed adjacent the vertex of the second acute angle.
18. A golf swing aid comprising:
25 an arm path member having a generally straight shape and include a
trailing end, a leading end, and an outer edge that is generally
straight;
a body path member having a generally arcuate shape and include a
trailing end, a leading end, and an outer edge that is generally
30 arcuate shape;

wherein the arm path member and body path member together define a monolithic unit and have a common central portion with the leading ends of the arm path member and the body path member diverging from each other and the trailing ends of the arm path member and the body path member diverging from each other.

19. The golf swing aid of claim 18, comprising:
a substantially straight, arm path indicator imposed on the arm path member and being generally parallel to the outer edge of the arm path member;
a generally arcuate-shape, body path indicator imposed on the body path member and being generally curvilinearly aligned with the curvature of the outer edge of the body path member; and
a club path indicator disposed on the common central portion of, and extending between, the arm path member and the body path member.

20. The golf swing aid of claim 19, wherein the common central portion of the arm path member and the body path member further includes a centrally located elongate hole adapted for receiving a golf tee with the elongate hole extending generally parallel to the arm path indicator.

21. The golf swing aid of claim 19, and further comprising:
a directional arrowhead disposed on each of the leading and trailing ends of the arm path member, with the directional arrowheads pointing in opposite directions; and
a directional arrowhead disposed on the leading end of the body path member.

22. The golf swing aid of claim 21, and further comprising:

- a target-line indicator disposed on the arm path member adjacent the leading end;
- a back swing indicator disposed on the arm path member adjacent the trailing end of the arm path member, with the back swing indicator including a directional arrowhead located adjacent to and pointing in the same direction as the directional arrowhead of the trailing end of the arm path member; and
- a follow through indicator disposed on the body path member adjacent the leading end, with the body follow through indicator including a directional arrowhead located adjacent to and pointing in the same direction as the directional arrowhead of the leading end of the body path member.

GOLF SWING PATH AND ALIGNMENT TRAINING DEVICE

Abstract of the Disclosure

A golf swing path training device for visually guiding a golfer through a proper swing path and properly align the golfer's stance includes an arm path member and a body path member. The arm path member includes a leading end, a central portion and a trailing end. The body path member includes a leading end, a central portion and a trailing end. The arm path member and the body path member are preferably integrally formed such that the central portion of the arm path member is connected to the central portion of the body path member. The central portion of the arm path member is substantially straight, whereas the central portion of the body path member is substantially arcuate. The golf swing path training device is configured to be placed on the ground in front of a golfer. During a swing, the arm path member, and in particular the substantially straight central portion, visually directs the golfer to maintain a substantially straight or vertical arm swing path during the back swing. Conversely, the body path member, and in particular the substantially arcuate central portion, visually directs the golfer to maneuver his or her body in a horizontal arcuate or rotating fashion throughout the golf swing.

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Date of Deposit: September 29, 2000

I hereby certify that this paper of fee is being deposited with the United States Postal Service "Express Mail Post Office to Addresses" service under 37 CFR 1.10 on the date indicated above and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20541.

Printed Name: Chrissy Walter

Signature: Chrissy Walter

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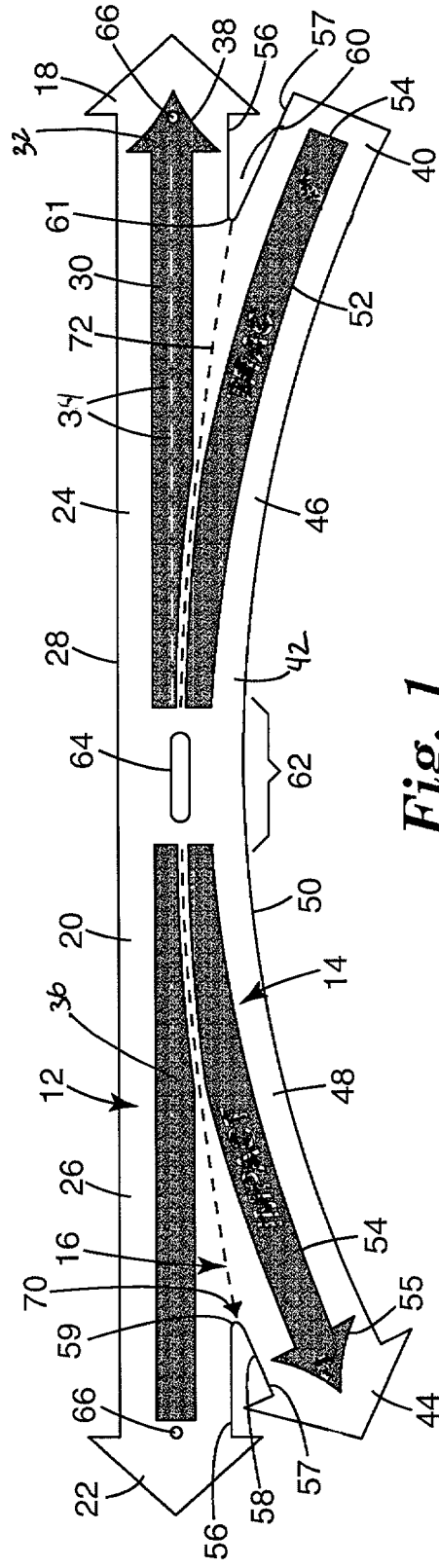


Fig. 1

DECLARATION, POWER OF ATTORNEY, AND PETITION

Being duly sworn, I, a below-named inventor, depose and say that: (1) my residence, citizenship, and mailing address is indicated below; (2) I have reviewed and understand the contents of attached specification, including the claims, as amended by any amendment specifically referred to herein, (3) I believe that I am the original, first, and sole inventor or discoverer of the invention or discovery in

GOLF SWING PATH AND ALIGNMENT TRAINING DEVICE

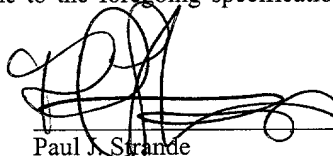
described and claimed therein and for which a patent is sought; and (4) I hereby acknowledge my duty to disclose to the Patent and Trademark Office all information known to me to be material to the patentability as defined in Title 37, Code of Federal Regulations, 1.56.*

I hereby appoint Steven E. Dicke (Reg. No. 38,431), Patrick G. Billig (Reg. No. 38,080); Timothy A. Czaja (Reg. No. 39,649); Thomas A. Rendos (Reg. No. 33,349); Michael R. Binzak (Reg. No. 38,081); Scott A. Lund (Reg. No. 41,166); and William M. Hienz III (Reg. No. 37,069) as my attorneys with full powers (including the powers of appointment, substitution, and revocation) to prosecute this application and any division, continuation, continuation-in-part, reexamination, or reissue thereof, and to transact all business in the Patent and Trademark Office connected therewith. Please direct all correspondence in this case to:

Timothy A. Czaja
Dicke, Billig & Czaja, P.A.
701 Building, Suite 1250
701 Fourth Avenue South
Minneapolis, MN 55415
(612) 573-2004

The undersigned petitioner declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Wherefore, I pray for grant of Letters Patent for the invention or discovery described and claimed in the attached specification and I hereby subscribe my name to the foregoing specification and claims, oath, power of attorney, and this petition, on the day set forth below.

 9/29/00
Paul J. Strande Date

Residence: Eagan, MN 55122
P.O. Box: 1540 Thomas Lake Road, #219
Citizenship: United States

§1.56 Duty to disclose information material to patentability.

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

- (1) prior art cited in search reports of a foreign patent office in a counterpart application, and
- (2) the closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.

(b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and

- (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
- (2) It refutes, or is inconsistent with, a position the applicant takes in:
 - (i) Opposing an argument of unpatentability relied on by the Office, or
 - (ii) Asserting an argument of patentability.

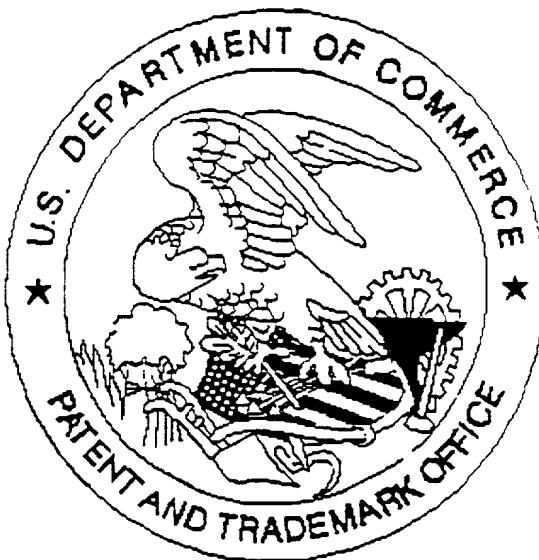
A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

(c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:

- (1) Each inventor named in the application;
- (2) Each attorney or agent who prepares or prosecutes the application; and
- (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.

(d) Individuals, other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.

United States Patent & Trademark Office
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Application deficiencies were found during scanning:

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☐ Page(s) _____ of _____ were not present
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There are 17 pages of Specification enclosed

☐ Scanned copy is best available.